

# Common Issues in Models Submitted to the IBIS Model Review Committee

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# IBIS Model Review Committee

Examples in this presentation show model characteristics as graphics. No identifying information or numeric values are presented.

# IBIS Model Review Process

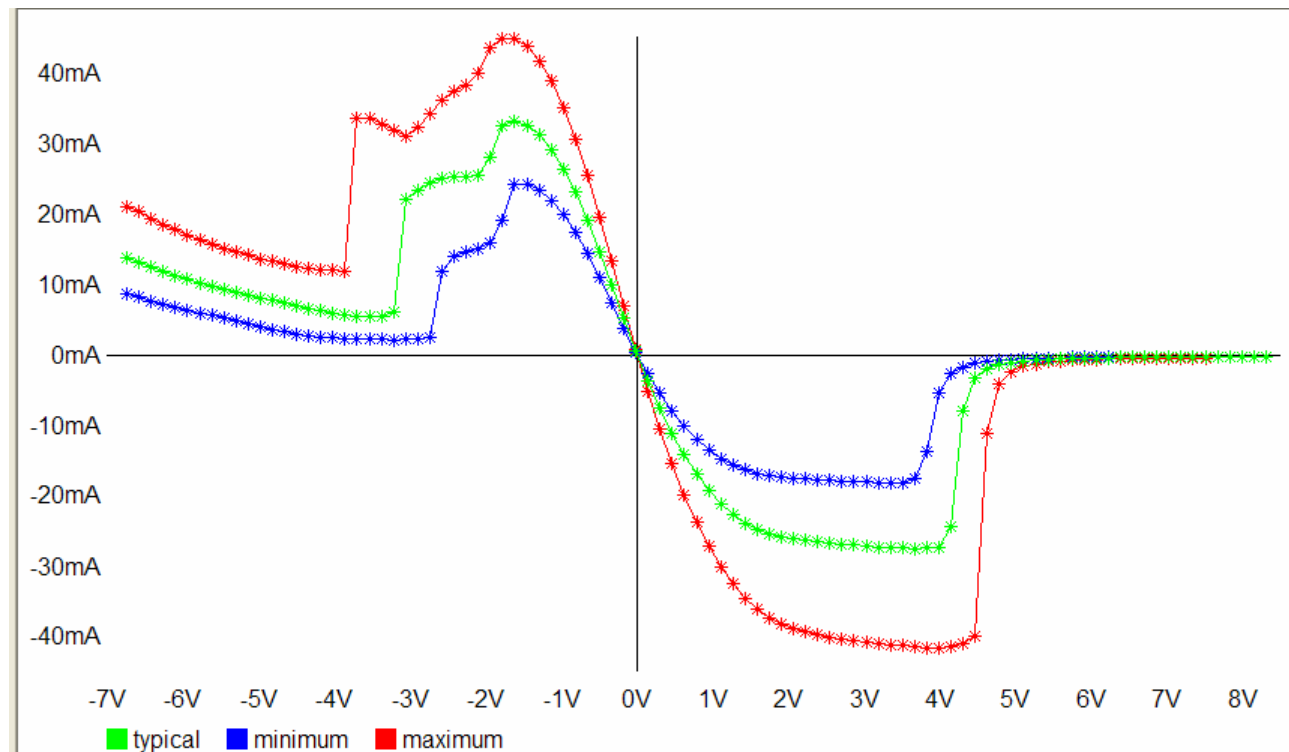
- All data is treated as confidential
- Chair, IBIS Model Review Committee
  - Receives models, runs parser
  - Helps resolve major issues
  - Distributes to committee members
- Committee Members
  - Review models in their flow
  - Return comments to model creators

# IBIS Data Issues

- Common problems
  - IBIS file does not pass ibischk4
    - Syntax, data, tool issues
  - Endpoint mismatch (differential I/O)
    - Tool issues, model accuracy
  - Excessively large R (1k to 100Meg)
    - Incomplete pullup/pulldown characterization

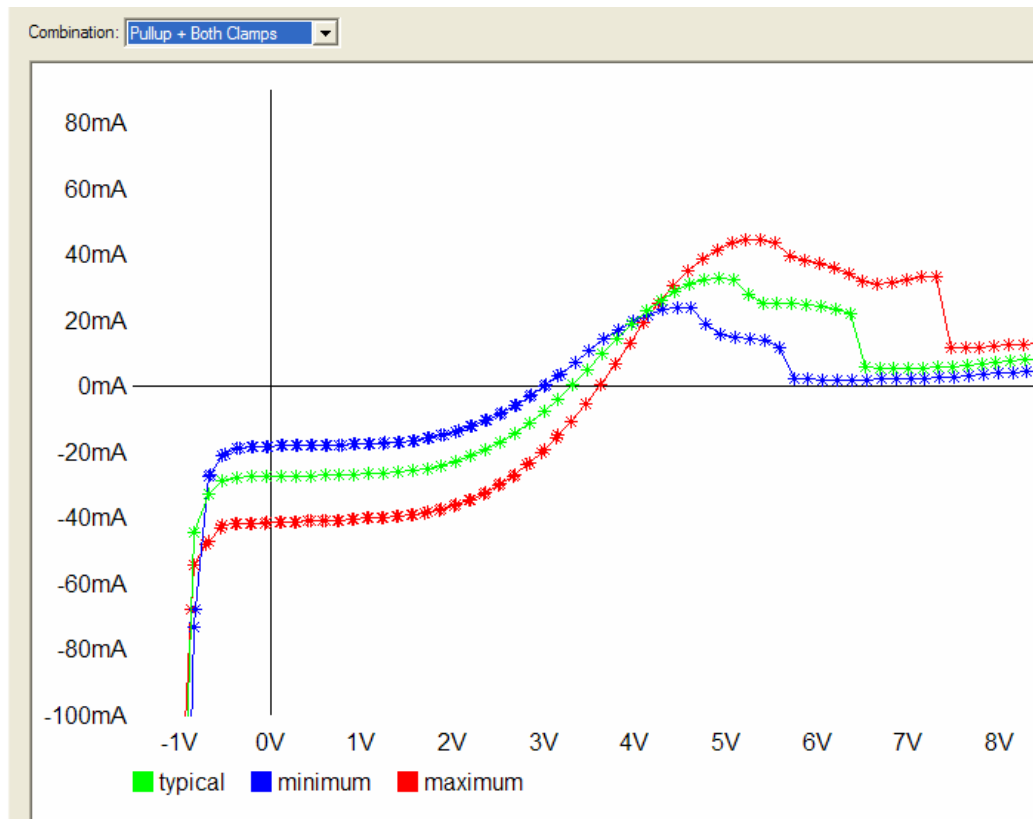
# Common Table Issues

- Is the non-monotonicity real?
  - Or artifact of clamp subtraction?



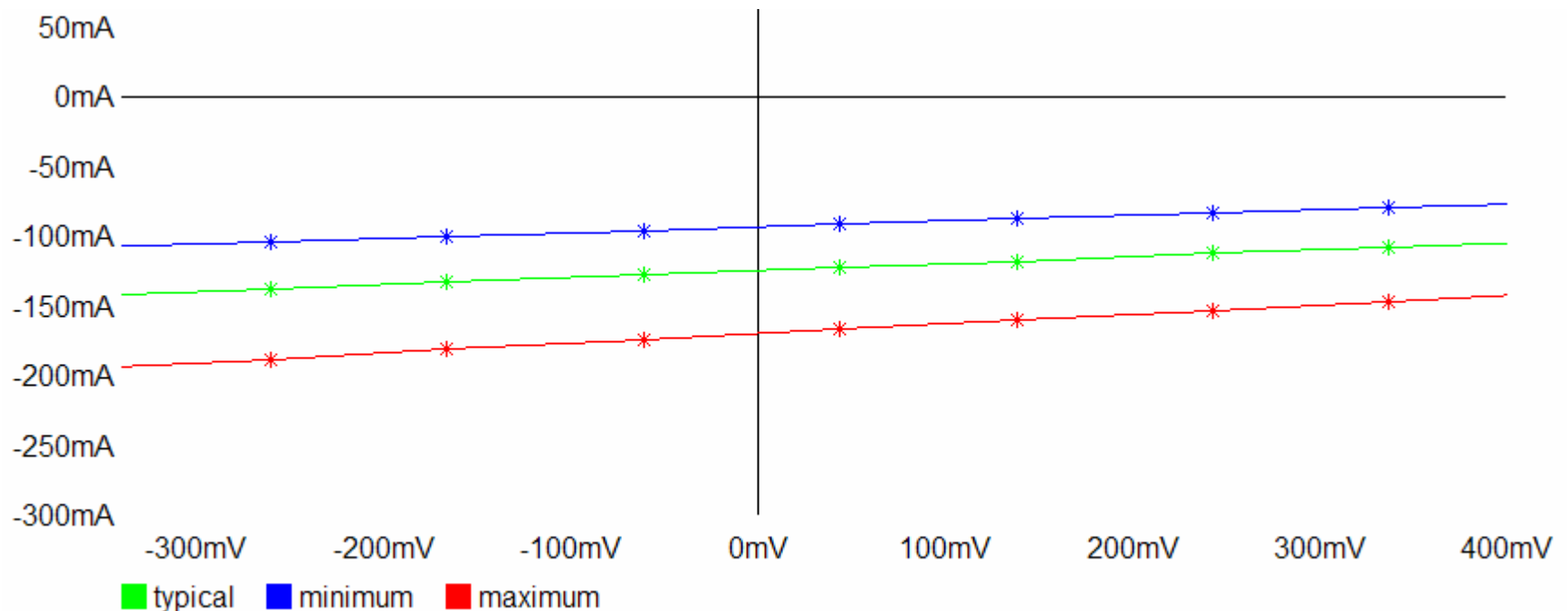
# Combining Tables

- Is the non-monotonicity real?
  - Same I/O, look at TOTAL current



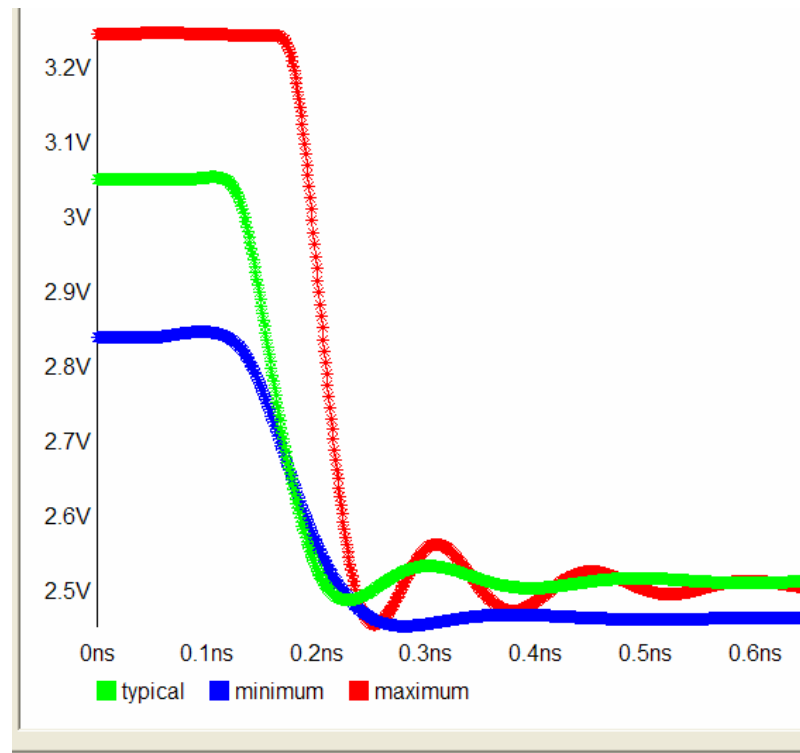
# Common Table Issues

- Curves not passing through 0A at 0V
  - Numeric resolution in SPICE or test
  - I/O or clamp as *power supply*???



# V-t Table Issues

- Non-monotonicity in V-t tables
  - Feedthru vs ringing
  - R loading vs L, C (pkg or fixture)





# An Interesting Case

- Model builder -> file passed parser
- Customers -> parser reported errors
- I ran the parser, saw 3 warnings
- Resolution
  - Customers need latest parser
  - Modeling issues were also identified

# What Can We Do?

- Other issues abound
  - Most files pass parser
  - Problems found viewing tables graphically
- How can this be addressed?
  - Make Cookbook more prominent
  - Support newbies – we all were at one time
  - Have good/bad IBIS examples on web?